

hydrazines

Hydrazine (diazane), H_2NNH_2 , and its *hydrocarbyl* derivatives. When one or more substituents are *acyl groups*, the compound is a hydrazide. *N*-Alkylidene derivatives are *hydrazones*.

See *azines*, *hydrazo compounds*.

1995, 67, 1341

amides

1. Derivatives of *oxoacids* $R_lE(=O)(OH)_m$ ($l \neq 0$) in which an acidic hydroxy group has been replaced by an amino or substituted amino group. Chalcogen replacement analogues are called thio-, seleno- and telluro-amides. Compounds having one, two or three acyl groups on a given nitrogen are generically included and may be designated as primary, secondary and tertiary amides, respectively, e.g. $PhC(=O)NH_2$ benzamide, $CH_3S(=O)_2NMe_2$ *N,N*-dimethylmethanesulfonamide, $[RC(=O)]_2NH$ secondary amides (see *imides*), $[RC(=O)]_3N$ tertiary amides, $PhP(=O)(OH)NH_2$ phenylphosphonamidic acid.

Notes:

- i. Amides with NH_2 , NHR and NR_2 groups should not be distinguished by means of the terms primary, secondary and tertiary.
 - ii. Derivatives of certain acidic compounds $R_nE(OH)_m$, where E is not carbon (e.g. *sulfenic acids*, $RSOH$, *phosphinous acids*, R_2POH) having the structure $R_nE(NR_2)_m$ may be named as amides but do not belong to the class amides proper, e.g. $CH_3CH_2SNH_2$ ethanesulfenamide or ethylsulfanylamine.
2. The term applies also to metal derivatives of ammonia and amines, in which a cation replaces a hydrogen atom on nitrogen. Such compounds are also called azanides, e.g. $LiN(Pr^i)_2$ lithium diisopropylamide, synonym lithium diisopropylazanide.

See also *carboxamides*, *lactams*, *peptides*, *phosphoramides*, *sulfonamides*.

1995, 67, 1315; see also 1993, 65, 1357

esters

Compounds formally derived from an *oxoacid* $R_kE(=O)_l(OH)_m$ ($l \neq 0$), and an alcohol, phenol, heteroarenol, or enol by linking with formal loss of water from an acidic hydroxy group of the former and a hydroxy group of the latter. By extension *acyl* derivatives of alcohols, etc. Acyl derivatives of chalcogen analogues of alcohols (thiols, selenols, tellurols) etc. are included. E.g. $R'C(=O)OR$, $R'C(=S)OR$, $R'C(=O)SR$, $R'S(=O)_2OR$, $(HO)_2P(=O)OR$, $(R'S)_2C(=O)$, $ROCN$ (but not $R-NCO$) ($R \neq H$).

Note:

O-Alkyl derivatives of other acidic compounds [see *amides (1)*] may be named as esters but do not belong to the class esters proper. E.g. $(Ph)_2POCH_3$ methyl diphenylphosphinite.

See also *acylals*, *ortho esters*, *depsides*, *depsipeptides*, *glycerides*, *lactides*, *lactones*, *macrolides*.

1995, 67, 1334